

**WE CLAIM**

1. A blade arrangement for a gas turbine engine, the  
5 blade arrangement comprising:

a plurality of blades mounted for rotation on a disc  
so as to extend radially outwardly therefrom; and

a retention member, the retention member including an  
attachment portion which is attached to the disc and an  
10 abutment portion for resisting forward axial movement of at  
least one of the blades relative to the disc ;

where in the blade arrangement further comprises  
restraint means spaced from the attachment portion of the  
retention member, for substantially preventing radially  
15 outward movement of the abutment portion of the retention  
member when a forward axial force is applied by the blade  
to the abutment portion.

2. A blade arrangement according to claim 1, the blade  
arrangement forming part of a low pressure compressor or  
20 fan.

3. A blade arrangement according to claim 1 wherein the  
retention member is shaped such that the abutment portion  
contacts part of the blade when a forward axial force is  
applied to the blade, to resist forward axial movement of  
25 the blade.

4. A blade arrangement according to claim 3 wherein the  
geometry of the blade arrangement is such that when the  
blade applies a forward axial force to the abutment portion  
of the retention member, a vector representing the  
30 resultant force applied to the retention member passes  
substantially through the attachment portion of the  
retention member.

5. A blade arrangement according to claim 4 wherein the  
restraint means includes a part of the retention member  
35 which is shaped such that its radial movement is  
substantially prevented by an adjacent part of the blade or

the disc.

6. A blade arrangement according to claim 5 wherein the said part of the retention member comprises a restraint member extending from a remainder of the retention member in an axially rearwards direction, the adjacent part of the blade or disc being located radially outwardly of the restraint member.

7. A blade arrangement according to claim 6 wherein the abutment portion and the restraint member together comprise a portion of the restraint member which is generally L-shaped in section.

8. A blade arrangement according to claim 6 the attachment portion of the retention member is located axially forwardly of the abutment portion and of the restraint means.

9. A blade arrangement according to claim 8 wherein the disc also includes an attachment portion, to which the retention member is attached, via a bolt arrangement, the bolt extending in the axial direction, and passing through both respective attachment portions of the retention member and the disc.

10. A blade arrangement according to claim 9 wherein the retention member includes an arm portion which extends between the attachment portion and the restraint member, the arm portion being angled at between  $40^{\circ}$  and  $70^{\circ}$  to the axial direction of the blade arrangement.

11. A blade arrangement according to claim 10 wherein the arm portion includes an undercut shoulder, which is generally L-shaped in section, and of complementary shaped to a radially outer corner of the attachment portion.

12. A blade arrangement according to claim 10 wherein the arm portion is substantially frustoconical in shape.

13. A blade arrangement according to claim 1 wherein the restraint member is substantially cylindrical in shape, and the adjacent part of the fan blade or disc comprises a substantially cylindrical member, located radially

outwardly of and adjacent to the restraint member, to substantially prevent radially outward movement of the restraint member.

14. A blade arrangement according to claim 1 wherein the  
5 restraint member comprises an elongate finger, located between the disc and the blade, the finger extending rearwardly from a remainder of the retention member, in the axial direction.

15. A blade arrangement according to claim 14 wherein the  
10 retention member includes a plurality of elongate fingers each located between a blade and the disc, an elongate finger being located between each blade and the disc.

16. A gas turbine engine including a low pressure  
15 compressor or fan including a blade arrangement according to claim 1.